



A survey of 4th year chiropractic students' experiences learning and using an electronic health record system

Matthew F. Funk, D.C.
Associate Professor of Clinical Services
University of Bridgeport College of Chiropractic



Introduction

Learning to use electronic health records (EHR) can be difficult and stressful, and requires investments in time and training resources. [1]

Research has demonstrated that:

- Providers worked longer hours for an average of four months while becoming familiar with a new EHR system.
- Providers noted increased efficiency and a better quality of life after several months of EHR implementation.[2]

EHR users were most satisfied when the EHR was perceived to:

- Increase quality of clinical decisions
- Increase delivery of long term and preventive care that met guidelines
- Increase communication with other providers. [3]

In the context of what is known about EHR implementation and preferences among users, it may be helpful to investigate how chiropractic college interns learn to use the EHR in our outpatient clinic and how they feel about its ease of use and features.

Survey Design/Methods

Since perceptions of EHR have been shown to change with increased use, surveys were given to:

- novice users (7th semester interns who have 6 weeks experience with the EHR) vs.
- more experienced users (8th semester interns with 24 weeks experience).

A questionnaire was designed to address:
How EHR was learned
How well it is perceived to function
Feature preferences

- Questions were based on similar questions from other published surveys
- Hoped to capture how our students generally feel about their experience using the EHR
- Relative agreement to statements regarding their training on EHR, how they actually learned to use the EHR, their perceived proficiency and how well the system works

A Likert scale was used to indicate relative agreement with each statement:

- strongly agree, agree, neutral, disagree or strongly disagree

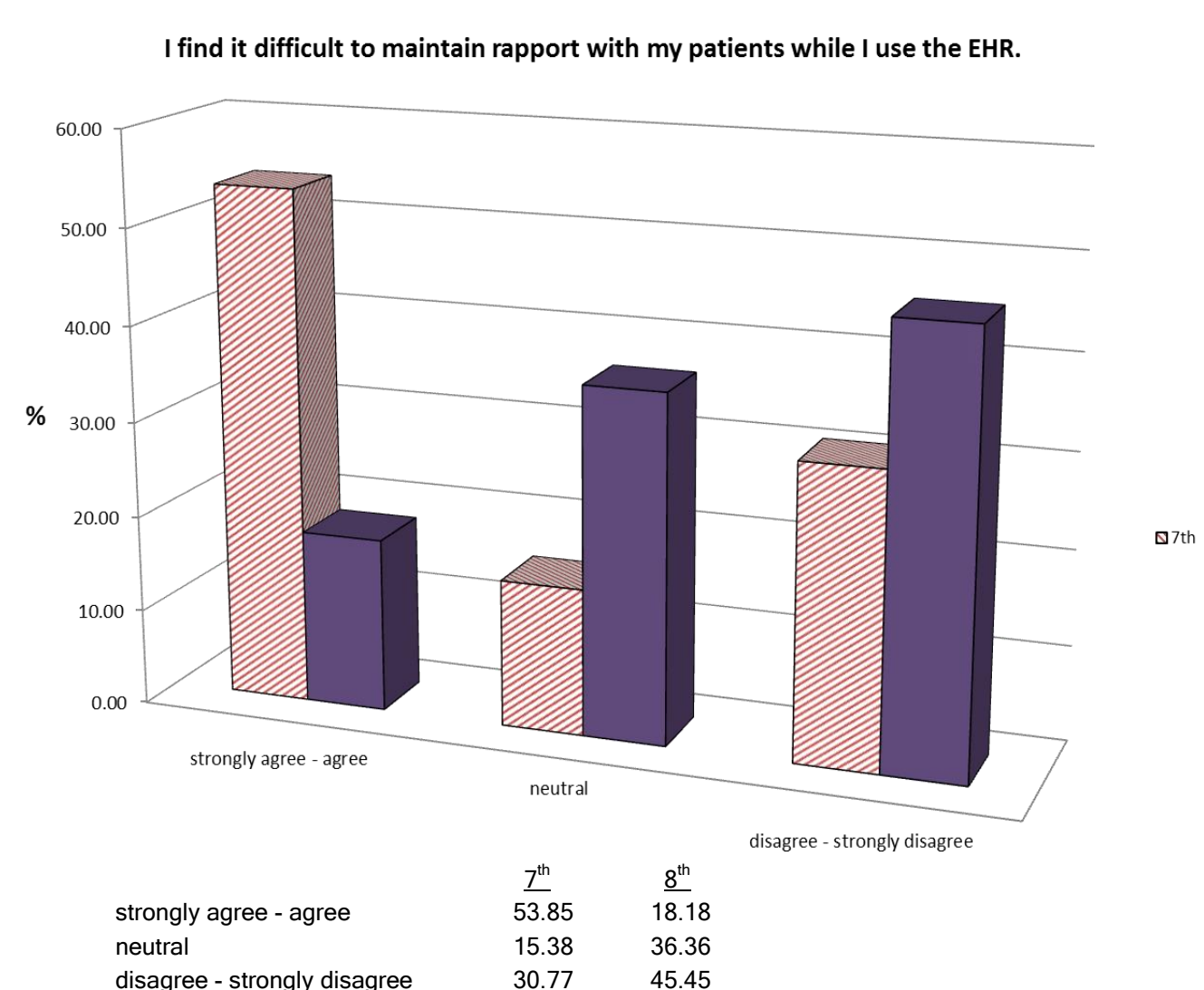
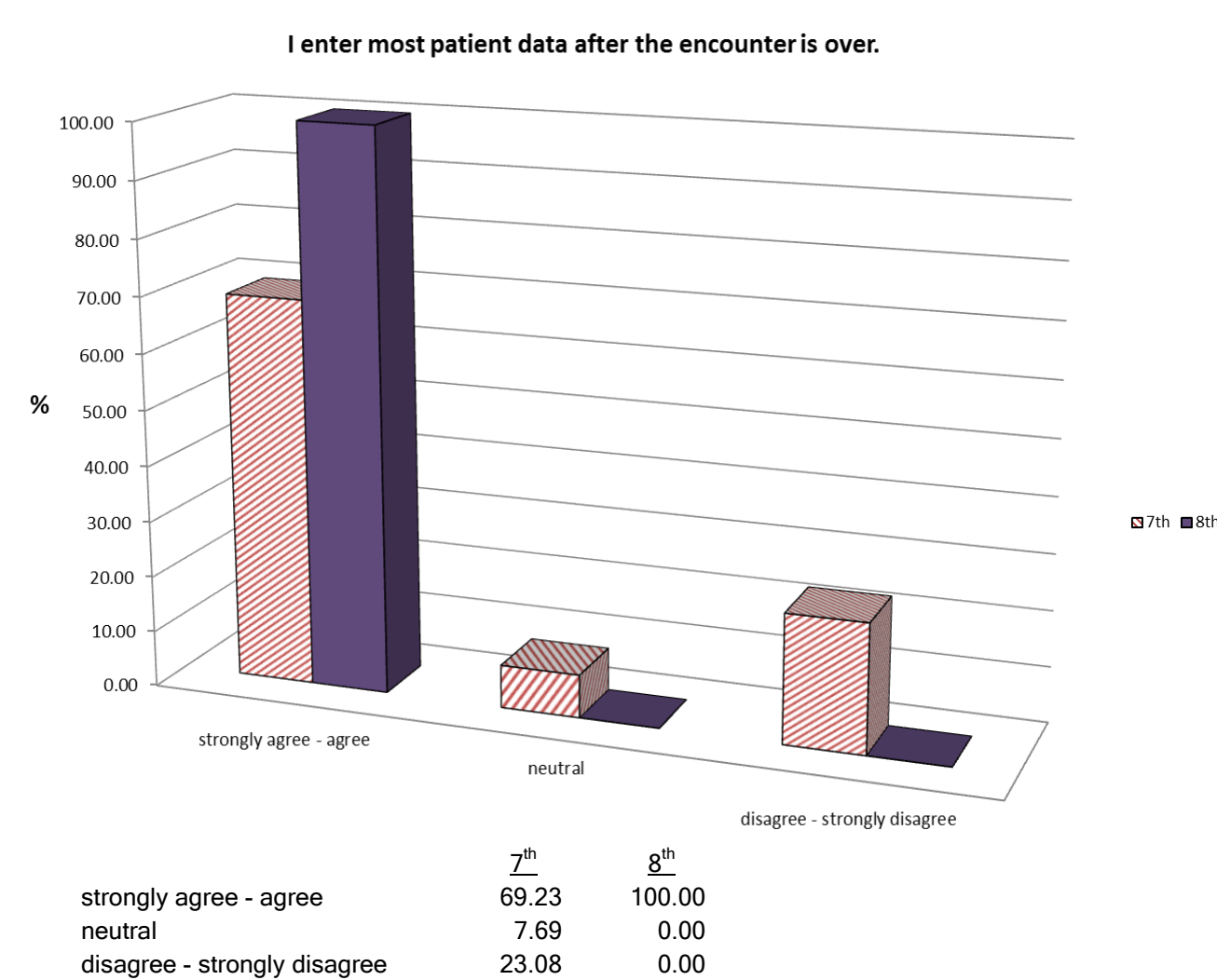
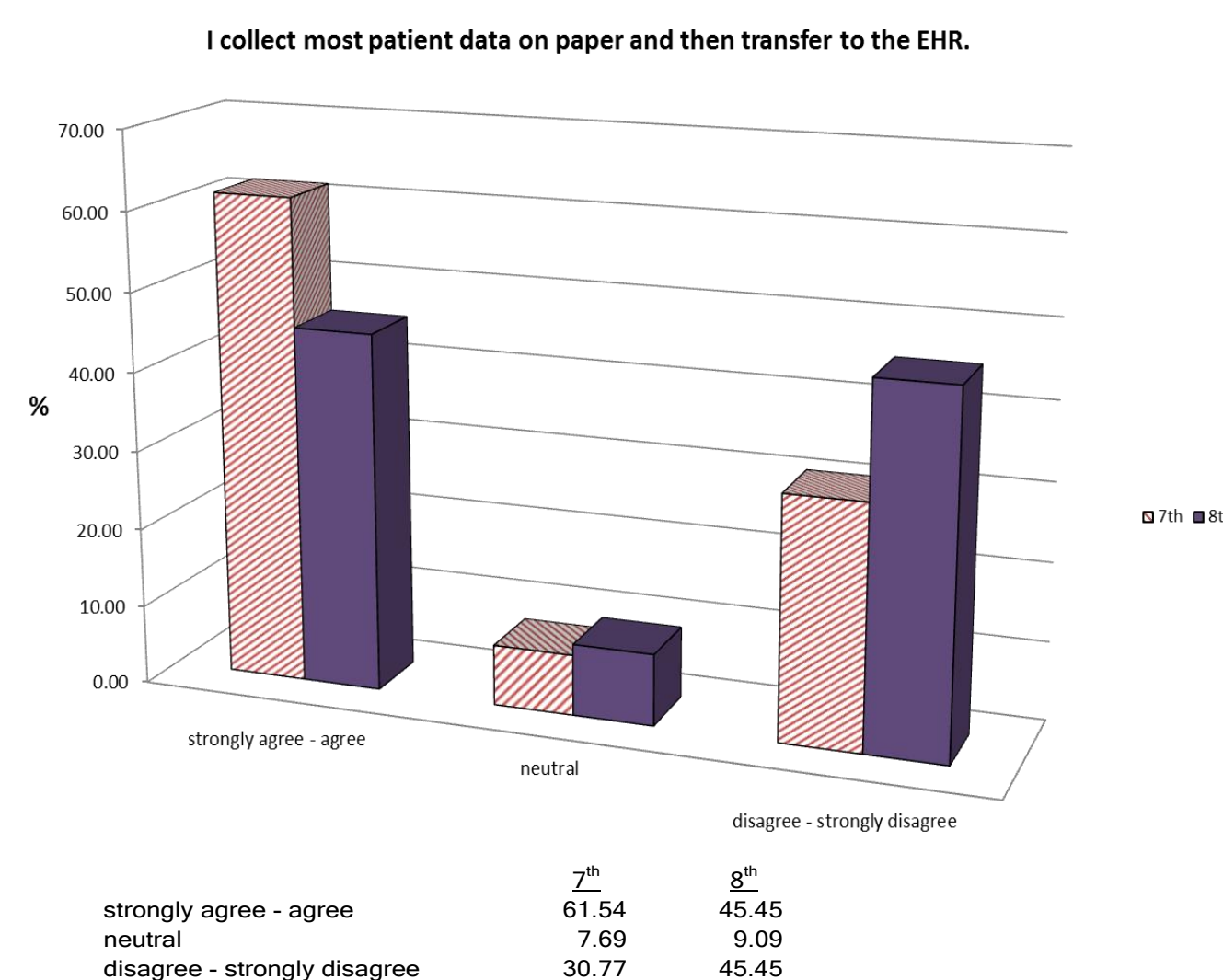
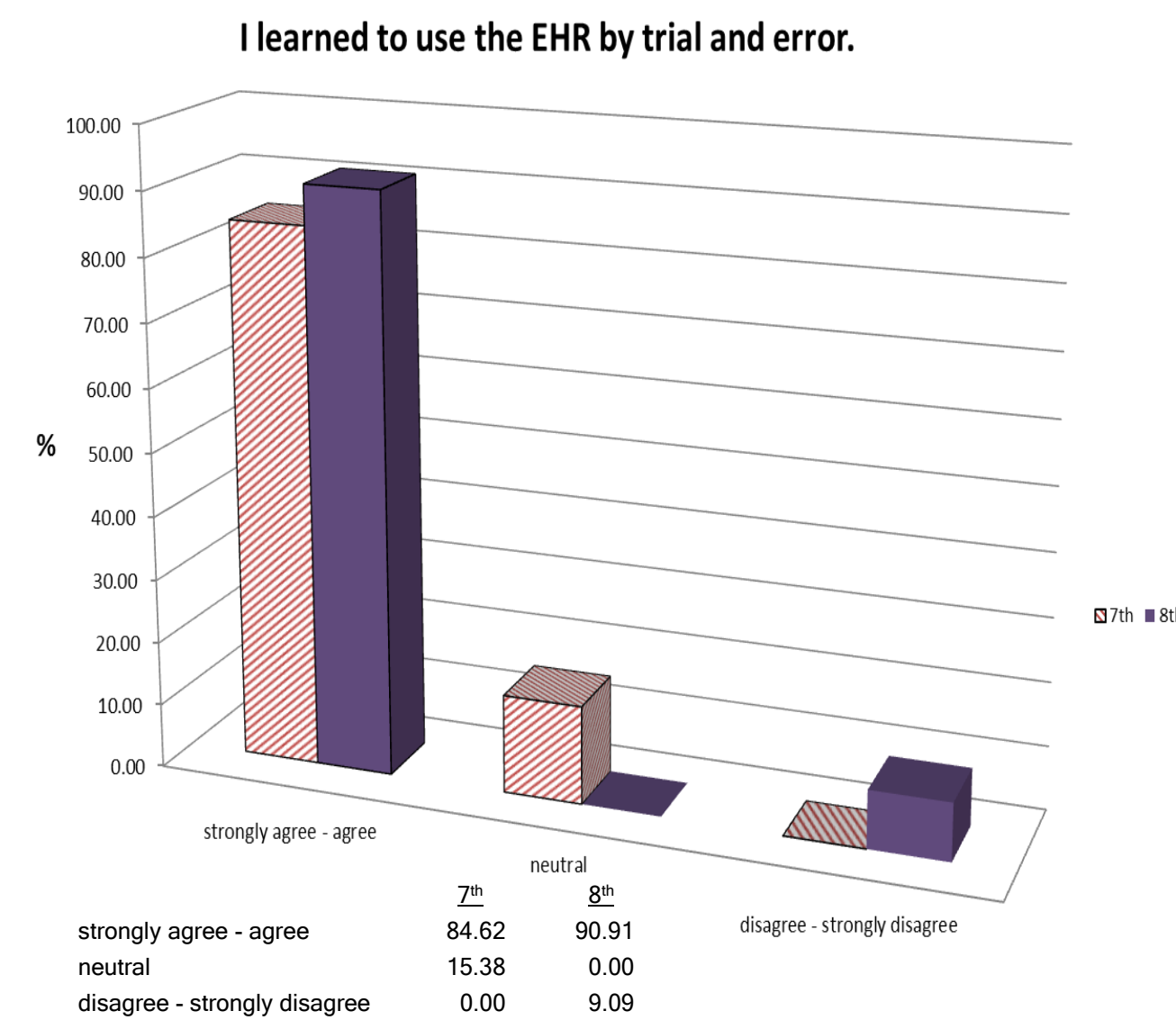
Free text space was also provided for interns to describe what they liked best about the current EHR, what they liked least, what they think should be improved or make other comments.

Results

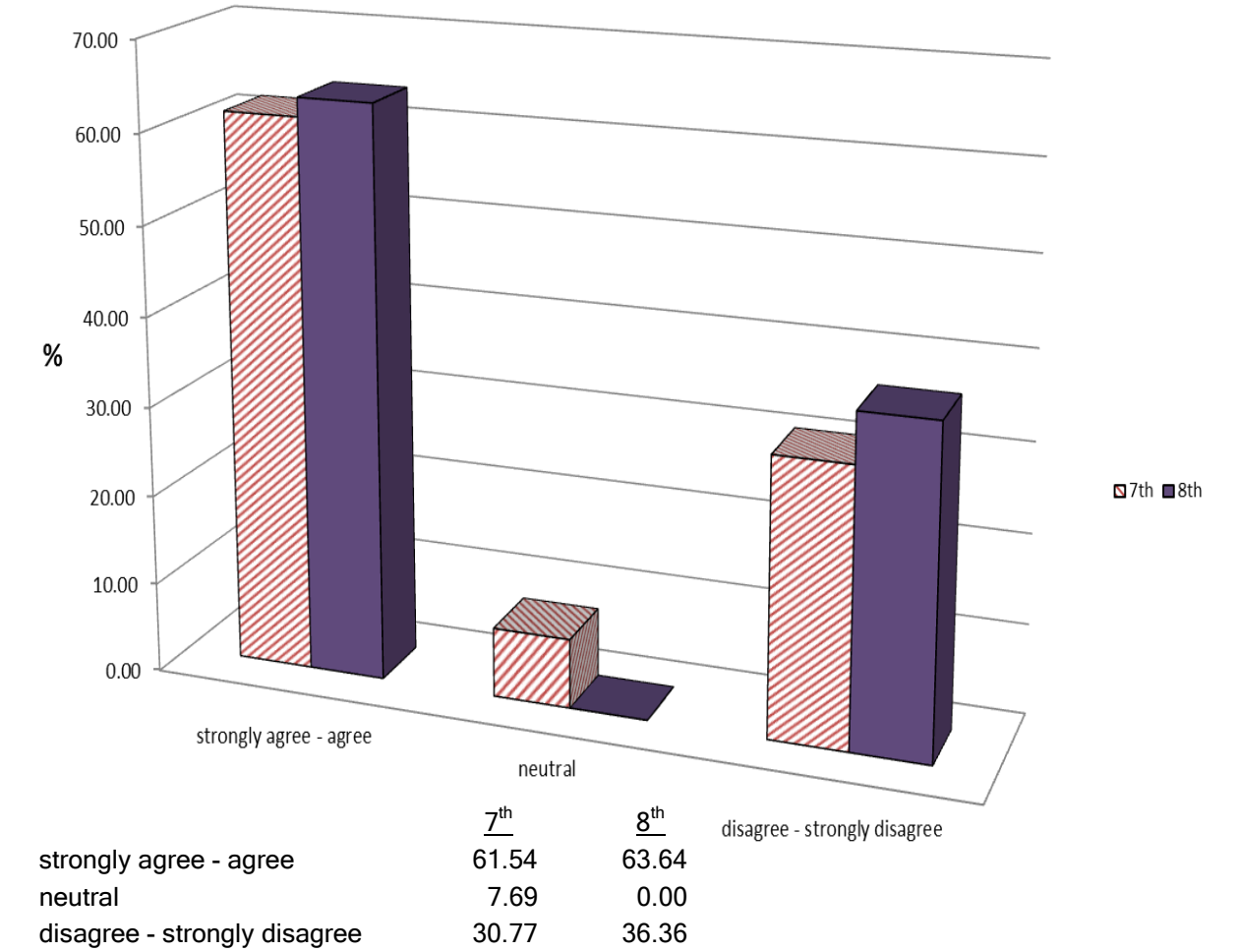
24 of 47 possible surveys were completed (51% response overall)

- 13/24 (54%) completed by 7th semester interns
- 11/23 (49%) by 8th semester interns

Some of the findings are shown below:



The EHR saves time when compared to paper notes.



After using the EHR for a full semester:

- 63.6% of 8th semester interns agreed that the **accuracy of their documentation increased**
- 54.5% also agreed that after using the EHR over the previous semester, they **were able to reduce the time it took to complete the patient encounter documentation**

Conclusions

As expected, interns with more experience responded they were more adept than those with less experience.

Most indicated they learned the EHR with help from upper semester interns and by trial and error.

- Most data are not entered during the encounter.**

This may be due to difficulty with the system, the time it takes or interns having difficulty doing so in front of the patient

- Interns felt the EHR saves time, is easier and more thorough when compared to paper notes.**

They did not find the system helped with clinical work flow, physical examinations or history taking.

8th semester interns agreed that having exposure to the EHR for a full semester improved documentation quality and decreased the time needed to complete a record.

This understanding of how interns learn to use an EHR may inform clinical educators to ensure that experienced users are available as mentors and adequate time is given for novices to master data collection and input.

References

- Ash JS, Bates DW. Factors and forces affecting EHR system adoption. J Am Med Inform Assoc. 2005;12:8-12.
- Miller RH, et al. The value of electronic health records in solo or small group practice. Health Affairs 2005;24(5):1127-1137.
- DesRoches CM, et al. Electronic health records in ambulatory care-a national survey of physicians. N Engl J Med. 2008;359:50-60.

Special thanks to Dr. Richard Saporito, Associate Professor of Clinical Sciences, UBCC, for his help with data presentation.